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Strategic approaches to freshwater management

Report of the Secretary-General

Addendum

Report of the Expert Group Meeting on Strategic Approaches to Freshwater Management (Harare, 27-30 January 1998)

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I. Introduction

1. The Expert Group Meeting on Strategic Approaches to Freshwater Management (Harare, 27-30 January 1998) was hosted by the Government of Zimbabwe and organized by the Department of Economic and Social Affairs of the United Nations Secretariat. The main objective of the Meeting was to provide an expert contribution to the discussion of the topic "Strategic approaches to freshwater management" by the Inter-sessional Ad Hoc Working Group of the Commission on Sustainable Development (New York, 23-27 February 1998) and by the Commission itself at its sixth session (New York, 20 April-1 May 1998).

2. The Meeting was co-chaired by Mr. Robert Ainscow of the United Kingdom of Great Britain and Northern Ireland and Mr. Sibekile Mtetwa of Zimbabwe. At the opening of the Meeting, the Honorable Mrs. Joyce Mujuru, Minister of Rural Resources and Water Development of Zimbabwe, delivered a statement of behalf of the host country. The Meeting was attended by more than 170 experts from developed and developing countries and countries with economies in transition, international organizations both within and outside the United Nations system, and non-governmental organizations and major groups of the civil society.

3. In addition to the plenary meetings, four working groups were established in order to ensure an in-depth consideration of a number of specific themes on the agenda, as follows: Working Group I (Water as the key resource in sustainable development); Working Group II (Freshwater ecosystems and water quality); Working Group III (Economic and financial issues); and Working Group IV (Participation and institutions for integrated water resources management). The deliberations in each of the working groups were led by two Moderators, as follows: Working Group I, Mr. James Bruce (Canada) and Ms. Krishna Singh (India); Working Group II, Mr. Ingvar Andersson (Sweden) and Mr. Armando Bertranou (Argentina); Working Group III, Mr. Torkil Jonch-Clausen (Denmark) and Mr. Sékou Touré (Côte d'Ivoire); and Working Group IV, Mr. Mohammed Jellali (Morocco) and Mr. Jean Claude Vial (France).

4. The participants noted a number of recent or forthcoming regional and international activities related to freshwater, in particular the adoption of the Cape Town Declaration of December 1997 and the preparations for the ministerial meeting on water resources and sustainable development to be held in Paris in March 1998.

5. The participants expressed their appreciation to the Government and people of Zimbabwe for hosting the meeting and the hospitality extended to its participants. They also expressed their gratitude to the sponsors of the Meeting – the Governments of Denmark, France, Ireland, the Netherlands, Sweden and the United Kingdom – and to the European Commission.

6. The report of the Meeting is presented as the Co-Chairmen's summary, prepared in collaboration with the Moderators; it assesses the overall outcome of the Meeting and draws a number of key conclusions from the discussions held. The full report of the Meeting, in addition to the Co-Chairmen's summary, also contains the reports of the four working groups. They outline in much greater detail the main recommendations and proposals made by the participating experts regarding actions required – at the local, national and international levels – in order to expedite the implementation of chapter 18 and other water-related provisions of Agenda 21. Some of the proposals and recommendations included in the report may not enjoy the support of all of the participating experts, and may therefore need to be further discussed in the future, in particular in the context of the policy dialogue on the strategic approaches to freshwater management under the aegis of the Commission on Sustainable Development.

II. Strategic approaches for freshwater management: policy options for consideration by the Commission on Sustainable Development and policy makers: an overview

7. The rationale for sustainable development and the links between development and environment were clearly articulated in Agenda 21. The specific proposals concerning freshwater in chapter 18 and other related provisions continue to be a basis for action. Since 1992, some countries have made progress on a path towards implementing the recommended actions at the national and local levels through the adoption of integrated approaches to freshwater management. There are a number of areas, outlined in the present report, that continue to build on Agenda 21. Nonetheless, there are other areas where more strategic actions are still needed in order to adapt to continually changing social and environmental circumstances, and to address the fundamental concerns of poverty alleviation, public health, food security and energy generation.

8. Demands for freshwater are driven by increases in population growth and sectoral pressures for both consumptive and non-consumptive uses. Sectoral demands include agriculture (irrigation and drainage), the provision of domestic water supply and sanitation, industry, energy generation, environmental requirements, amenity and tourism. The nature of these demands are further complicated by changes in patterns of consumption as a result of industrialization, rural/urban shifts, migration and unaccounted for water, and are set against clear limits and variability in the available resource. It is increasingly clear that unprecedented demands for water supplies are resulting in continued degradation of the resource base and intensified competition for high-quality water. A characteristic of these stresses is that all their components are not equally distributed in time and space.

9. There is evidence of progress in improving some aspects of freshwater resources management since 1992. Marked improvements in water quality have occurred in a number of river basins where public pressures for action have been strong. Lower discharge of toxic substances have reduced public health risks and improved the habitats of fish and wildlife in some river basins. New technologies and water demand management have resulted in improved efficiency in water use in irrigation, industrial processing and municipal supplies. Improved soil and water conservation through the explicit linkage of water with land and forestry policies has halted land degradation in vulnerable landscapes. Institutions for integrated water management have been strengthened in several developing countries, along with the adoption of new or improved water policies, information systems and action plans resulting in improvements in water-use efficiencies, water quality and related ecosystems. Industrialized countries are replacing outmoded policy and regulatory frameworks as circumstances and socio-economic circumstances change. Several initiatives to establish comprehensive and participatory river basin management, including international river basins, are replacing purely administrative and technical solutions. International networks in support of integrated water resources management have been created.

10. However, although many lessons have been learned, overall progress has been neither sufficient nor comprehensive enough to reduce the general trends of increasing water shortages, deteriorating water quality and growing stresses on freshwater ecosystems. There is a compelling case for integrating these approaches to freshwater management into national economic frameworks as key elements in policies for sustainable development and poverty alleviation. Socio-economic productivity can be enhanced and environmental integrity conserved as a result of such integration.

11. Integrated water resources management – within a national economic framework – is essential for achieving efficient and equitable allocation of water resources and thus for promoting sustainable economic development and poverty alleviation. The adoption of an integrated approach to the environmentally sustainable management of water resources is also fundamental for protecting freshwater ecosystems, water quality and human health. At the same time, the financial sustainability of the water sector – together with policies for financial burden-sharing and for ensuring access by the poor – are a prerequisite for the successful implementation of integrated water resources management. In order to be effectively implemented, integrated water resources management should also include institutional and legal capacity-building, human resources development and participatory approaches. The basis for a strategic approach to integrated freshwater management can be founded on a set of key elements that bring together all the relevant parties and their particular socio-economic and environmental concerns that are bound by freshwater.

12. Most decisions and actions related to water take place at the local, subnational and national levels since physical and socio-economic settings are diverse. However, local actions may have national and even regional implications for related areas of natural resource management.

13. There is much to be done, but an integrated approach is the way forward since it offers a means of reconciling competing demands with dwindling supplies, as well as a framework in which hard choices can be made and effective operational actions can be taken. It is valuable for all countries and at all stages of development.

14. The view of the Meeting was that the future will present many challenges for the sustainable development of freshwater resources. Nevertheless, the judgement of the experts was that in spite of the current serious concerns regarding scarcity and degradation of the quality of freshwater resources in large areas of the world, water need not become a limiting factor for sustainable development and human welfare. A series of crises, potentially with regional and even global implications, can be averted if vigorous action is taken now to establish an integrated approach to freshwater resources management. Key recommendations in this regard are set out below .

III. Key recommendations for an integrated approach to freshwater resources management

A. General

Sustainability

15. There is a need to recognize water as a social and economic good with a vital role in the satisfaction of basic human needs, food security, poverty alleviation and the protection of ecosystems. The principle of sustainability must underpin an integrated approach to managing freshwater resources in order to maintain and extend the benefits derived from natural freshwater systems.

Water policy and integrated management

16. As recommended in Agenda 21, it is essential for all countries to develop national – and where relevant subnational – water policies, and to continually review such policies as circumstances change. Fundamental to this process is the concept of an integrated approach to the planning, allocation, development and management of freshwater resources at the level of river basins and aquifers. The basic management unit should be designated in such policies as river basins and aquifer units.

Management of the resource

17. The management of the demand for and allocation of water resources should be based on principles of equity and efficient use to promote sustainable development, including health, the satisfaction of basic human needs, food security and environmental protection.

B. Capacity-building

18. Institutional and human capacities at the national and local levels will need substantial strengthening if an integrated approach is to be implemented. The need to strengthen capacity at local levels is especially strong since the training of local entrepreneurs has an important role in implementing actions. There is also a need to promote the use of indigenous technologies and knowledge in addition to the transfer of appropriate technologies.

C. Information management

Information management

19. There is a need to finance, establish and maintain effective data collection and dissemination, information management systems and research in order to provide a sound basis for policy formulation, planning and investment decisions, and the operational management of freshwater resources. The collection of all freshwater resource and related socio-economic and environmental data and information needed for policy decisions, planning and management action and monitoring should have a high and continued priority.

Indicators of progress

20. Governments need to adopt, implement and monitor national water-related indicators of progress in achieving integrated water resources management, including water quality objectives, which should take account of the work of the Commission on Sustainable Development in this area.

D. Environment and development

Ecosystem integration

21. The conservation of freshwater and related ecosystems is vital to sustainable development. Such ecosystems are themselves users, water regulators and providers of freshwater-based resources, including fisheries. It is therefore necessary to promote an ecosystem approach in integrated water resources planning, development and management, within the framework of river basin and aquifer systems.

Human interactions with the environment

22. There is a need to ensure that effective local and national systems are in a position to bring about productive and sustainable interactions between human activities and the ecological functioning of freshwater systems, and to minimize downstream impacts, including on estuarine and marine environments, and to reduce losses from droughts and floods.

Water quality and environmental sanitation

23. There is a need to safeguard water quality as regards human health, productive uses of water and the protection of freshwater ecosystems. There is a need to implement measures – including sanitation programmes, which have

been notably neglected – to safeguard water quality, recognizing that poor environmental sanitation is the leading cause of human sickness in developing countries.

E. Economics and finance

Economics

24. Water planning and management needs to be integrated into the national economy, recognizing the vital role of water for the satisfaction of basic human needs, food security, poverty alleviation and ecosystem functioning, and taking into account the special conditions of non-monetary sectors of the economy.

Allocation

25. Water needs to be considered as a finite and vulnerable resource and a social and economic good, and the costs and benefits of different allocation – social, economic and environmental – need to be assessed. The use of various economic instruments are important in guiding allocation decisions.

Accountability

26. It is essential to ensure efficiency, transparency and accountability in water resources management as a precondition for sustainable financial management.

Covering costs

27. All costs must be covered if the provision of water is to be viable. Subsidies for specific groups, usually the poorest, may be judged desirable within some countries. Wherever possible, the level of such subsidies and who benefits from them should be transparent. Information on performance indicators, procurement procedures, pricing, cost estimates, revenues and subsidies needs to be provided in order to ensure transparency and accountability, maintain confidence and improve investment capacities in the water sector.

Financial resources

28. Increased financial resources will need to be mobilized for the sustainable development of freshwater resources if the broader aims of sustainable economic and social development are to be realized, particularly in relation to poverty alleviation. Evidence that existing resources are being used efficiently will help to mobilize additional finance from national and international sources, both public and private.

F. Participation and institutions

Participation

29. There is a need to ensure the implementation of participatory approaches to freshwater resources management, based on the recognition of the social and economic values of freshwater and its related ecosystems. Programmes to raise awareness of the issues, particularly among youth, are important. It is important that stakeholders at all levels be involved in a transparent approach for policy-making, planning and management, as a "bottom-up" and "top-down" process.

Legislative and regulatory framework

30. A legislative and regulatory framework should be established in order to facilitate integrated water resources management strategies, and to ensure that the capacity exists to apply legislation and enforce regulations. Such a framework should be conducive to private-sector investment and the involvement of local service providers.

Institutional development

31. There is a need to design and adapt institutions to effect an integrated approach to policy analysis and integrated water resources management for specific environmental and socio-economic settings. The role of government needs to be clearly defined, with a distinction between the functions of standard and regulation setting and control, on the one hand, and the direct management and provision of services on the other, as well as between the role of government at all levels and that of the private sector and other stakeholders.

Partnership

32. The establishment of an enabling environment should be promoted, with specific mechanisms that facilitate partnerships between public, private and community organizations, local authorities, non-governmental organizations and all public and private actors.

Enhancing the role of women

33. Women should have an equal role with regard to water resources management at the local, national and international levels.

G. International cooperation

Support for national action

34. International cooperation and partnership in support of national actions are essential for achieving sustainable development, particularly in the water sector. This includes the need to mobilize and provide new and additional financial resources for developing countries, as set out in Agenda 21, as well as the need to enhance international cooperation in such areas as capacity-building, transfer of technology, research and information exchange.

Promoting a common approach

35. The United Nations system should play an active role in harmonizing, at the international and national levels, the recommendations being made to countries for integrated water resources management strategies.

Information exchange

36. Governments should promote vital information exchange and dissemination through greater use of the Internet and other modern means of communication.

Donor-recipient dialogue

37. Governments and the international community need to strengthen consultation mechanisms for improving donor/recipient dialogues for the mobilization of financial resources in a well-targeted and predictable manner, based on national action plans, with a special focus on integrated water resources management that recognizes the needs of the poorest communities.

Regional consultations on drought and flood preparedness

38. There is a need to establish or strengthen mechanisms for regional consultations on drought and flood preparedness, as well as early warning systems and mitigation plans at the local and national levels, regional emergency funds and/or collective insurance programmes. At the international level, there is a need to maintain support of such activities following the close of the International Decade for Natural Disaster Reduction in 1999.

International watercourses

39. Riparian States are encouraged to cooperate among each other on matters related to transboundary water resources, building on existing agreements principles, arrangements, instruments and programmes of action, taking into account the interests of all riparian States concerned. Such efforts, at the common request of concerned States, may need to be supported through international cooperation.

Water-related international conventions and programmes for action

40. In the formulation and implementation of integrated water resources management policies and programmes, there is a need to take into account actions to implement a number of existing conventions and programmes of action relevant to freshwater, in particular the conventions on biodiversity, desertification, climate change, wetlands and international trade in endangered species, as well as the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.

IV. Conclusion

41. The Expert Group Meeting invites the Commission on Sustainable Development to give consideration to the general conclusions and recommendations outlined above, together with the more detailed proposals for action contained in the reports of the four working groups to be presented by the Government of Zimbabwe in a separate report. It is hoped that the Commission will support these recommendations and proposals for action, thus promoting an integrated approach to freshwater management at all levels while ensuring that national action is supported through adequate means of international cooperation.

42. Furthermore, the Expert Group Meeting recommends that the Commission invite countries to submit, by the year 2002, information on their national water policies and related plans, and on progress in their implementation.